Accuracy of Self-Reported Health Service Utilization Data in the Homeless

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Background

- Health services research often relies on self-report data
- Precise measurement of outcomes is important for research and care
- Limited data on agreement between self-report data and medical record data in homeless populations

Background

- HIV+ unstably housed adults poor agreement (62 - 65 %, K = 0.12) for ambulatory visits in past 6 months

  Cunningham CO et al., Medical Care 2007 Mar; 45 (3): 264-8

- Homeless adults were found to under report number of physician visits in past year

  Gelberg L, Medical Care 1997; 35 (3): 287-290

Study Goal

To determine the accuracy of self-report health service use (medical hospitalization and emergency department visit) data from a cohort of chronically medically ill homeless adults

Methods

- Sub-study of a longitudinal randomized clinical trial evaluating the effect of providing housing and comprehensive case management to the homeless with CMIs
- Recruited from urban, public hospital in Chicago

Methods

- One of 15 qualifying CMIs
- Unstable Housing 30 days prior
- Intact decision making, able to self-care
- English or Spanish speaking

- Face to face interviews at baseline, 1, 3, 6, 9, 12 and 18 months
- Health service use measured NIDA HIV Cost study instrument

Methods

- Medical record data from electronic and paper sources for enrolling hospital and 39 outside
- Included completed study period by August 2007
- Deceased prior to 18m removed (n = 36)

- Dichotomous outcome variables: ED visits, hospitalizations
- Analysis – percent agreement , Kappa statistic

Demographics (N = 193)

	%
Age: years, mean, S.D.	46, 8.7
Gender: Male	78
Race/Ethnic group	
African-American	78
White	8
Latino	8
Other	6
High School or greater	54
Veteran	7

Health Variables

	%
HIV	45
Hypertension	24
Pulmonary Disease	13
Diabetes	10

Medical Record Data

- First ED visit:
  - 78 electronic (> 90%)
  - 62 outside records requested, 37 (60%) received
- First hospitalization:
  - 88 electronic (>90%)
  - 66 outside records requested, 47 (71%) received

Medical Record Data

	Mean, SD, range
ED Visits	3.9 (7.9) (0-71)
Hospitalizations	2.9 (4.4) (0-39)

Agreement ED visits

	MR			
	No	Yes	%	K
Self report				
No	20	29	66	0.2
Yes	33	99		

Agreement ED visits

	%	K
Intervention	65	0.1
Control	66	0.2
Male	66	0.2
Female	63	0.1
Education: ≥ HS	66	0.2
Education < HS	65	0.0
HIV+	62	0.1
HIV-	69	0.2

Agreement Hospitalizations

	MR			
	No	Yes	%	K
Self report				
No	18	23	68	0.2
Yes	35	105		

Agreement Hospitalizations

	%	K
Intervention	65	0.2
Control	71	0.1
Male	71	0.2
Female	58	0.07
Education ≥ HS	68	0.2
Educaiton < HS	65	0.0
HIV+	65	0.1
HIV-	70	0.2

Summary

- Agreement between self-report and medical record health service utilization (both hospitalizations and ED visits) was poor in this cohort of homeless adults with chronic medical illness
- No difference in agreement by study group, gender, education or HIV status
- Self-report method over reported health service use by 25%

Limitations

- Medical records may be missing or may be incomplete
- Participant recall bias

Lessons Learned

PROs

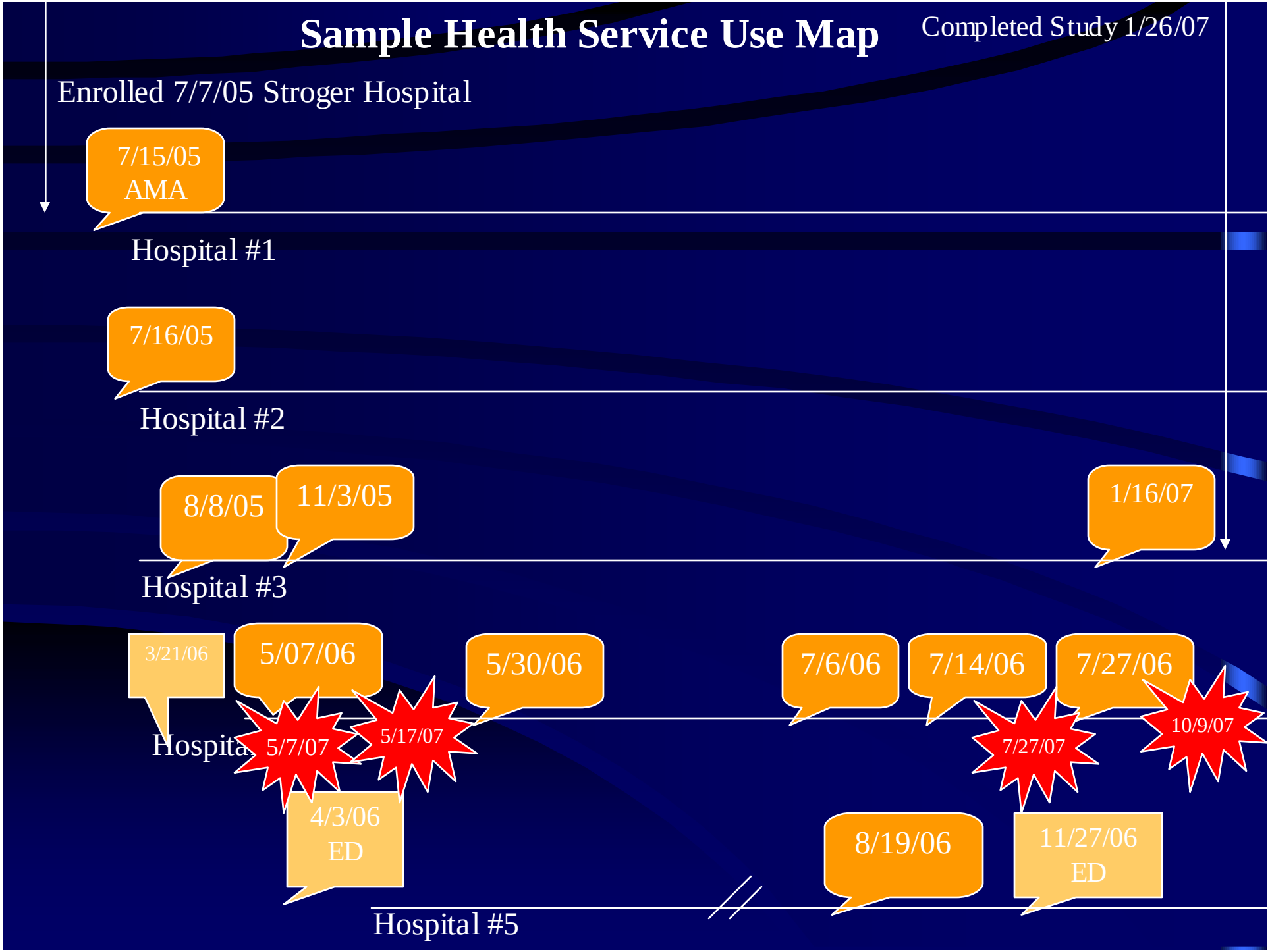
- Improved accuracy information on health service use
- Potential improved accuracy information on other health variables

CONs

- Monetary cost
- Increased staff time, effort, expertise
- Varying MR request procedures (across time, institutions, staff, diagnosis)
- Need for tracking procedures (large N, high frequency users)

Sample Health Service Use Map

Completed Study 1/26/07



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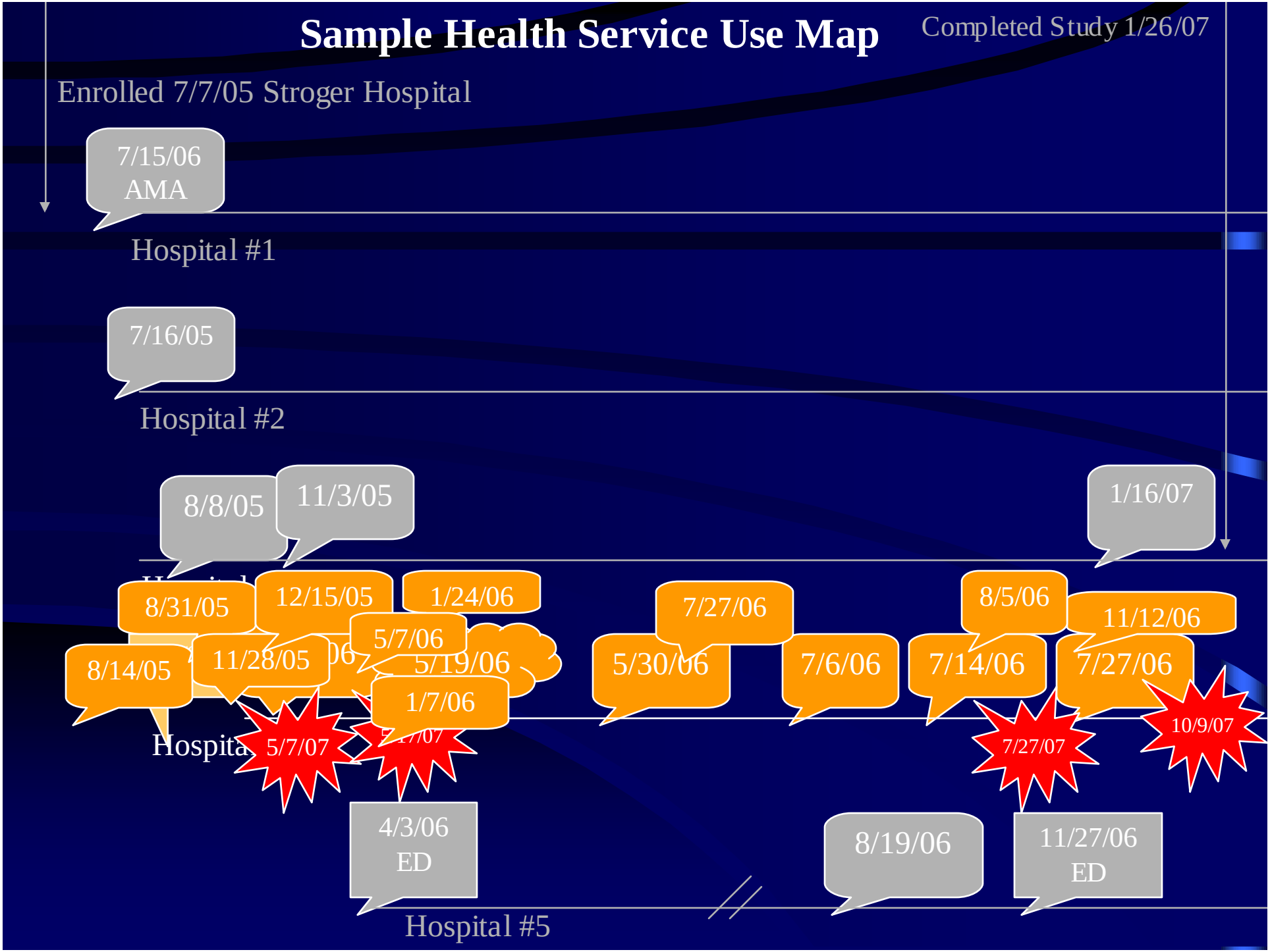

To come….

- Analyze full data set
- Substance abuse status, Mental health symptoms
- Number of visits, hospitalizations
- Length of stay

Acknowledgements

- Participants
- Research Assistants, Data Entry Staff & Diana Garcia (Project Coordinator)
- Arturo Bendixen (AIDS Foundation)
- Dr. David Buchanan (Co-Investigator)
- Dr. Laura Sadowski (PI, Co-Chair CRU)